

NEW OR OTHERWISE NOTEWORTHY APOCYNACEAE
OF TROPICAL AMERICA. V¹

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Plumeriopsis Rusby & Woodson, gen. nov. Apocynacearum (Plumerioideae-Plumerieae-Cerberinae). Calyx 5-partitus intus multisquamelligerus, laciniis subaequalibus foliaceis. Corolla salverformis majuscula, tubo cylindrico faucibus paulo inflato ibique squamas 5 dentiformes villosulas gerente, limbi lobis late obliqueque obovatis patentibus. Antherae haud conniventes exappendiculatae parvae apice minute appendiculatae. Ovarium 2-carpellatum apocarpum 2-4-ovulatum, nectario annulari multifido. Fructus baccatus.—Arbusculae, foliis alternatis, inflorescentiis racemosis plurifloris aut terminalibus aut lateralibus.

Type species: *P. Ahouai* (L.) Rusby & Woodson.

Plumeriopsis Ahouai (L.) Rusby & Woodson, comb. nov.

Cerbera Ahouai L. Sp. Pl. ed. 2. 303. 1762.

Cerbera nitida HBK. Nov. Gen. 3: 225. 1819.

Thevetia Ahouai (L.) A. DC. in DC. Prodr. 8: 344. 1844.

Thevetia nitida (HBK.) A. DC. loc. cit. 345. 1844.

Plumeriopsis is undoubtedly closely associated phylogenetically with *Thevetia*, but the relatively few points of divergence are of considerable morphological importance. Chief of these is found in the nature of the fruit, that of *Thevetia* being definitely drupaceous, with a thick, woody endocarp, while that of *Plumeriopsis* is essentially baccate, with only a thin, membranaceous endocarp. The mesocarp of both genera is very fleshy and brilliant red in color, as well as highly toxic. The second important criterion is found in the structure of the corolla, that of *Thevetia* being infundibuliform, with slightly spreading lobes of about equal length to the tube, whereas that of *Plumeriopsis* is typically salverform, with proportionally

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shorter, sharply reflexed lobes. *Plumeriopsis* is evidently a monotypic genus.

Tonduzia macrantha Woodson, spec. nov., arborescens ca. 8 m. alta; ramulis gracilibus inconspicue lenticellatis; foliis ternatis superne oppositis longiuscule petiolatis oblongo-ellipticis apice longiuscule acuteque acuminatis basi cuneatis in petiolis decurrentibus 10–18 cm. longis 2–4 cm. latis firme membranaceis supra aliquid nitidulis subtus opacis omnino glaberrimis; petiolis 1–2 cm. longis glabris; inflorescentiis terminalibus irregulariter cymosis plurifloris foliis multo brevioribus; pedicellis 0.5–0.7 cm. longis glabris; bracteis ovato-deltoideis minimis; calycis laciniis ovato-deltoideis rotundatis margine undulatis 0.1–0.125 cm. longis subfoliaceis glaberrimis intus eglandulosis; corollae salverformis colore albidae tubo 0.7 cm. longo basi ca. 0.125 cm. diametro metiente extus glabro intus puberulo, lobis late oblongo-dolabriformibus apice rotundatis 0.9–1.0 cm. longis patulis extus glabris intus basi puberulis caeterumque glabriusculis; staminibus valde inclusis, antheris 0.175 cm. longis glabris; ovariis ovoideis ca. 0.08 cm. longis glaberrimis nectarium annulare ca. ter superantibus; stigmatibus 0.15 cm. longo; folliculis crassiusculis falcatis 10–12 cm. longis; seminibus ignotis. — GUATEMALA: QUEZALTENANGO: second-growth woodland, Volcan Zunil, alt. 5500 ft., July 30, 1934, *A. F. Skutch 871* (Herb. Missouri Bot. Garden, TYPE, Herb. Arnold Arboretum, ISOTYPE).

This species is distinguished by the magnitude of the flowers which are two to three times larger than those of the previously described species of the genus, recalling certain representatives of *Tabernaemontana*.

Rauwolfia indecora Woodson, spec. nov., fruticosa altitudine ignota; ramis ramulisque teretibus juventate minutissime puberulis mox glabratis maturitate bene lenticellatis; foliis ternatis subsessilibus ovatis apice acute acuminatis subcaudato-acuminatisve basi obtusis 0.9–2.5 cm. longis 0.5–1.2 cm. latis in verticillo subaequalibus membranaceis supra glabris opacisque subtus minutissime puberulis; petiolo vix 0.05 cm. longo glandulifero; inflorescentiis 1–3-floris folia subaequant-

bus; pedicellis 0.1–0.3 cm. longis; calycis laciniis ovato-lanceolatis anguste acuminatis 0.1–0.15 cm. longis puberulo-papillatis; corolla haud visa; drupis subgloboso-subreniformibus inconspicue emarginatis 0.6–0.8 cm. longis 0.7–0.9 cm. latis.—**COSTA RICA:** Catalina, alt. 2000 ft., June 29, 1928, *H. E. Stork 2800* (Herb. Field Museum, TYPE).

Very closely related to *R. Alphonsiana* Muell.-Arg., of Cuba, but distinguished by its nearly isophyllous, subsessile leaves, which are minutely puberulent beneath, and its larger drupes.

Vallesia antillana Woodson, spec. nov., fruticosa glaberrima 3 m. plus minusve alta; foliis alternatis petiolatis ovato-vel obovato-ellipticis basi obtusis vel late cuneatis apice acuminatis vel acutis rariusve obtusiusculis 2.5–8.0 cm. longis 1–3 cm. latis subcoriaceis; petiolis 0.4–0.7 cm. longis; appendicibus stipulaceis minute dentiformibus deciduis; inflorescentiis irregulariter dichasialibus lateralibus folia ca. dimidio aequantibus flores parvos albidos 3–12 gerentibus; pedicellis 0.4–0.5 cm. longis; bracteis minute ovato-deltaideis deciduis; calycis laciniis ovato-trigonalibus acuminatis 0.07–0.1 cm. longis; corollae tubo 0.6–0.7 cm. longo basi ca. 0.125 cm. diametro metiente deinde paulo angustato faucibus paulo ampliato ibique staminifero extus glaberrimo, limbi lobis oblongo-ellipticis obtusis 0.45–0.5 cm. longis patulis, alabastro anguste ovoideo-cylindrico; antheris subsessilibus ovoideis ca. 0.1 cm. longis omnino inclusis; ovariis ovoideis ca. 0.1 cm. longis glabris, stylo 0.3–0.35 cm. longo; stigmatibus capitato apice breviter 2-lobo 0.05 cm. longo; drupis oblique angusteque obovoideis, semine cum endocarpo duro ca. 1 cm. longo.—**FLORIDA:** thickets on Key West, April 13, 1896, *A. H. Curtiss 5620* (Herb. Missouri Bot. Garden, TYPE).

Vallesia antillana is widely distributed in southern peninsular Florida, the Bahama Islands, Cuba, Hispaniola, and perhaps others of the Antilles. It has long been confused with *V. glabra* (Cav.) Link, which is distinguished from our species by a much smaller corolla (0.5–0.7 cm. long), the proportionally shorter lobes of which are broadly conical in convolution, and narrower, usually elliptic-lanceolate leaves.

Vallesia flexuosa Woodson, spec. nov., arborescens glaberrima; foliis alternatis petiolatis obovato-oblongis apice acute acuminatis basi late obtusis subtruncatis 6–14 cm. longis 2.5–4.0 cm. latis membranaceis; petiolis 0.5–0.7 cm. longis; appendicibus stipulaceis minute dentiformibus persistentibus; inflorescentiis irregulariter scorpioideis, pedunculis secundariis brevibus sed valde manifestis multo brevioribus quam foliis flores parvos albidos 8–14 gerentibus; pedicellis 0.3–0.4 cm. longis; bracteis parvis ovatis deciduis; calycis laciniis anguste ovatis anguste acuminatis 0.1–0.15 cm. longis; corollae tubo 0.8–0.9 cm. longo basi ca. 0.1 cm. diametro metiente deinde paulo angustato faucibus ampliatis ibique staminifero, limbi alabastro anguste ovoideo-cylindrico, lobis oblongo-ovatis anguste obtusis 0.3–0.4 cm. longis patulis; antheris subsessilibus ovoideis ca. 0.1 cm. longis omnino inclusis; ovariis ovoideis ca. 0.1 cm. longis glabris; stigmatibus capitatis apice brevissime 2-lobis ca. 0.05 cm. longo; fructibus ignotis.—**COSTA RICA**: bois des collines de Zarcera, alt. 1550 m., Dec. 21, 1924, *A. Brenes 4156* (Herb. Field Museum, TYPE).

Apparently most closely related to *V. Baileyana*, of central Mexico, but differing strikingly in the much larger leaves and smaller flowers.

Vallesia Baileyana Woodson, spec. nov., fruticosa glaberrima altitudine ignota; foliis alternatis petiolatis oblongo-lanceolatis apice acutis basi obtusis 6–9 cm. longis 1.2–2.0 cm. latis firmiter membranaceis; petiolis 0.7–0.9 cm. longis; appendicibus stipulaceis minute dentatis persistentibus; inflorescentiis subumbellatis plerisque dichotomis multo brevioribus quam foliis flores mediocres albidos 8–20 gerentibus; pedicellis 0.3–0.4 cm. longis; bracteis minute ovato-lanceolatis deciduis; calycis laciniis anguste ovatis acutis 0.08–0.1 cm. longis; corollae salverformis tubo 0.9–1.0 cm. longo basi ca. 0.1 cm. diametro metiente, faucibus paulo inflatis ibique staminiferis, lobis oblongo-ovatis rotundatis 0.5–0.6 cm. longis patulis; antheris ovoideis ca. 0.1 cm. longis omnino inclusis; ovario ovoideo ca. 0.1 cm. longo; stigmatibus subcapitatis obscure 2-lobis ca. 0.06 cm. longo; fructibus ignotis.—**MEXICO**: SONORA: Nacapule Canyon,

near Guaymas, March 30, 1934, *L. H. Bailey s. n.* (Herb. Missouri Bot. Garden, TYPE).

The affinities of this species with *V. flexuosa* have already been indicated. Both are closely allied to *V. montana* Urb., of Hispaniola, which is distinguished chiefly by corolla-lobes nearly equalling the tube.

Allomarkgrafia Brenesiana Woodson, spec. nov., fruticosa volubilis alte scandens omnino glaberrima; ramulis crassiusculis teretibus bene lenticellatis; foliis oppositis superne rarius ternatis petiolatis oblongo-ellipticis apice breviter subcaudato-acuminatis basi late obtusis rotundatisve 8–12 cm. longis 2.0–3.5 cm. latis subcoriaceis supra, nervo medio basi inconspicue glandulifero, petiolis 0.8–1.0 cm. longis; inflorescentiis lateralibus aut subterminalibus cymoso-compositis flores majusculos aut gilvos aut albidos 6–12 gerentibus; pedicellis 1.2–1.5 cm. longis; bracteis minute ovatis caducis; calycis laciniis ovatis vel ovato-lanceolatis acutis 0.2–0.25 cm. longis intus multisquamelligeris; corollae infundibuliformis tubo proprio 1.3–1.5 cm. longo basi ca. 0.15 cm. diametro metiente, faucibus conicis 2 cm. longis, ostio ca. 0.8 cm. diametro metiente, limbi lobis oblique obovatis 2.0–2.5 cm. longis patulis; antheris omnino inclusis oblongo-ellipticis basi obtuse 2-lobatis glabris; ovariis oblongoideo-ovoideis ca. 0.25 cm. longis glabris; nectariis 5 compresse oblongoideis ca. dimidio brevioribus quam ovariis; folliculis ignotis.—COSTA RICA: ALAJUELA: bosque entre La Balsa y Cataractas de San Ramon, alt. 850 m., Oct. 12, 1925, *A. Brenes 4509* (Herb. Field Museum, TYPE).

This species is very closely related indeed to *A. ovalis* (Mgf.) Woods., which may be distinguished by its broader foliage with more abrupt acumination, and particularly by the corolla throat, which is essentially campanulate, and broader than the conical throat of *A. Brenesiana*. The same species has been found by Brenes at two additional localities in the environs of San Ramon: "Entre La Balsa y Los Angeles, près La Paz ca. de San Ramon," alt. 980 m., July 30, 1926, *Brenes 4912* (Herb. Field Museum); Los Angeles de San Ramon (Finca Johanson), April 14, 1928, *Brenes 6127* (Herb. Field Museum).

Allomarkgrafia subtubulosa Woodson, spec. nov., fruticosa volubilis 10–15 m. altitudine attingens omnino glaberrima; ramulis crassiusculis bene lenticellatis; foliis oppositis petiolatis late ovalibus apice late obtusis vel brevissime lateque acuminatis basi late obtusis 8–12 cm. longis 3–5 cm. latis coriaceis, supra nervo medio basi multiglanduloso; petiolis 0.8–1.2 cm. longis; inflorescentiis aut lateralibus aut subterminalibus ut videtur simplicibus (pro genere raro) flores 8–12 speciosos gilvos gerentibus; pedicellis 1.0–1.2 cm. longis; bracteis minute ovatis scariaceis persistentibus; calycis laciniis ovatis late acutis rotundatisve 0.2–0.25 cm. longis minute papillatis squamellis subquadratis multis; corollae subtubulosae tubo 2.0–2.5 cm. longo basi ca. 0.2 cm. diametro metiente ca. medio staminifero deinde paululo ampliato, ostio ca. 0.25 cm. diametro metiente lobis oblique obovatis 1.7–2.0 cm. longis patulis; antheris oblongo-ellipticis basi obtuse 2-lobatis 0.6–0.65 cm. longis glabris; ovariis oblongoideis 0.35–0.4 cm. longis minutissime papillatis; nectariis 5 compresse oblongoideis ovario ca. dimidio brevioribus; folliculis ignotis.—COSTA RICA: ALAJUELA: bosquets, collines près de San Ramon, alt. 975–1000 m., April 21, 1927, *A. Brenes 5457* (Herb. Field Museum, TYPE).

The type specimen is somewhat fragmentary, as far as the inflorescence is concerned, and it is not possible to prove conclusively that the inflorescence is simple, but should such be the case it would be an anomaly for the genus. The subtubular corolla is not strictly conformable with the original characters of *Allomarkgrafia* as well, although the affinity of *A. subtubulosa* with such species as *A. Brenesiana* Woods., *A. plumeriaeflora* Woods., and *A. ovalis* (Mgf.) Woods. is quite obvious.